

# **BREBNER FLAT PROJECT**

## **Scenic Resources Report**

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### **for:**

St. Joe Ranger District  
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## Introduction

This report describes the existing condition of the scenic resources for the project area and its surroundings, and the anticipated effects of the proposed alternatives described under the Brebner Flat project. The project area is located on the St. Joe Ranger District of the Idaho Panhandle National Forests (IPNF) in Shoshone County, Idaho. It lies south of the St. Joe Scenic Byway (Forest Highway 50 [FH 50]) and the St. Joe River, and due south of the town of Avery, Idaho. The project area boundary encompasses about 11,779 acres in the Kelley Creek, Siwash Creek, and Blue Grouse Creek drainages.

Portions of the project area are visible in varying distances from the St. Joe River, FH 50, the town of Avery, Idaho, Nelson Ridge National Recreation Trail, Cedar Mountain Trail, Dunn Peak Lookout, and Dunn Peak Road, as well as recreation sites and forest roads and trails. People use the area for a variety of activities, which in turn enhance visitors' quality of life and contribute to the area's sense of place.

Terminology used in this report is defined in Agriculture Handbook No. 701, *Landscape Aesthetics: A Handbook for Scenery Management*. See this handbook for more information regarding scenery management.

## Affected Environment

The St. Joe River runs along the northern boundary of the Brebner Flat project area, and is highly prized by visitors for its offering of many forms of water recreation; the river is especially popular with anglers due to the native westslope cutthroat trout. The surrounding forests are frequented by big game hunters and OHV enthusiasts. Roads in the project area offer motorized access to forest visitors. The Kelley Creek road offers primary access to the project area.

This section of the report describes the affected environment of the project area, and includes descriptions of the area's landscape character, scenic attractiveness, landscape visibility, and existing scenic integrity.

### *Landscape Character*

*Landscape Character* is defined as "an overall visual and cultural impression of landscape attributes – the physical appearance and cultural context of a landscape that gives it an identity and 'sense of place'" (Landscape Aesthetics, pp. 1-2).

The landscape character of the area is partially described in the St. Joe Geographic Area (GA) section of the 2015 IPNF Forest Plan:

*The St. Joe GA lies predominantly within Benewah and Shoshone Counties in Idaho, with small portions in Kootenai, Latah, and Clearwater counties. Of the 1,449,000 acres within this GA, 724,810 (50 percent) are administered by the IPNF.*

*The St. Joe GA stretches westward from the rugged Idaho/Montana border along the Bitterroot Mountains to the rolling Palouse flatlands along the Idaho/Washington border. The St. Joe Mountains are the northern limit of the GA, while the Clearwater Mountain Range is the southern limit. The St. Joe GA has some of the most productive and biologically diverse forest lands in the Columbia River Basin. The St. Joe GA contains plants and animals of the central Rocky Mountains, the boreal forests, and the moist coastal forests. The St. Joe River basin, headwaters of the Little North Fork of the Clearwater River basin, and the St. Maries River basin are the dominant watersheds within this GA (Forest Plan, p. 96).*

More specifically, the project area is composed of very steep mountainous terrain typical of the Columbia Rockies region and within the St. Joe GA. The project area is bounded on the north by the St. Joe River, known for its crystal clear waters and views into deep canyons, gorges, and valleys with vertical or near vertical rock walls.

Elevation ranges from approximately 3,000 feet to over 5,000 feet above sea level. Siwash Peak is one of the higher points in the project area, extending approximately 5,800 feet above sea level. North Siwash, also located on the project boundary extends nearly 5,300 feet above sea level. Significant drainages include Kelly Creek, Siwash Creek, and Blue Grouse Creek.

Forest vegetation is generally continuous, evenly textured forest cover within the project area and includes both warm/dry and warm/moist biophysical settings. Forest vegetation includes ponderosa pine, Douglas-fir, lodgepole pine, and western larch in the warm/dry setting. These settings are characterized by a variety of visual conditions, ranging from early age, dense stands, to older stands with widely-spaced large diameter trees. The warm/moist setting is diverse and is dominated by western white pine, western larch, Douglas-fir, and grand fir/cedar/western hemlock mix. The forest vegetation has changed over time from stands dominated by western white pine and western larch due to a combination of white pine blister rust introduction, fire suppression, and past management practices. Before the stand-replacing fires of 1910 and 1926, and the subsequent focus on fire suppression, western white pine was a more prominent component of the landscape. Presently, the project area is made of generally dense coniferous cover primarily comprised of mature forests dominated by Douglas-fir, grand fir, and western hemlock; late-seral species that are disease-prone and drought-intolerant (PF: RRFV).

Evidence indicates humans have been present in the larger landscape of the St. Joe River basin for at least 5,000 years (*Integration of Forest Planning into Ecosystem Management*, 1997, p. 73). Activities of humans have affected the vegetation, wildlife, recreation activities, and economic conditions of the landscape. Today, people use the area to engage in a variety of pursuits that include hunting and fishing, camping (especially dispersed site camping), hiking, firewood gathering, and driving for pleasure (full-sized vehicles, motorcycles, and OHVs). In addition, timber removal on private industry land has affected the setting and scenic integrity of the project area.

## Scenic Attractiveness

*Scenic Attractiveness* is the “primary indicator of the intrinsic scenic beauty of a landscape and of the positive responses it evokes in people. It helps determine landscapes that are important for scenic beauty, based on commonly held perceptions of the beauty of landform, vegetation pattern, composition, surface water characteristics, and land use patterns and cultural features” (Agriculture Handbook No. 701, pp. 1-14).

Scenic Attractiveness is defined as Class A (Distinctive), Class B (Typical), or Class C (Indistinctive). Class A includes areas where landform, vegetation patterns, water characteristics, and cultural features combine to provide unusual, unique, or outstanding scenic quality *within the landscape character*. Class B (Typical) contains areas in which the natural and cultural features combine to create ordinary or common scenic quality, and Class C (Indistinctive) contains those areas where natural and cultural features (or the lack thereof) combine to provide low scenic quality. It is important to note that the frame of reference for scenic attractiveness is the landscape character description (Agriculture Handbook No. 701, pp. 1-16).

Along the St. Joe River corridor the Scenic Attractiveness is rated as Class A (Distinctive), with its combination of water, landform, and rock features coinciding to result in that unique scene. The upper areas of the project area (i.e., located away from the river) are rated as Class B (Typical) for its uniform, closed-canopy forest, broken only occasionally by small parks with few larger trees.

See the project file for the scenic attractiveness map (PF: SM02).

## Landscape Visibility

*Landscape Visibility* addresses “the relative importance and sensitivity of what is seen and perceived in the landscape” (USDA Forest Service 1995). Landscape visibility is affected by a number of factors including: context of viewers, duration of view, degree of discernable detail, and number of viewers (USDA Forest Service 1995: 4-2). In general, the greater the number of people likely to view a landscape, and the longer

the duration, the more sensitive the landscape is to modification. The proximity of the viewer to the particular landscape affects the visibility and sensitivity. Viewing distances for this analysis are: immediate foreground (0 feet to 300 feet); foreground (300 feet to ½ mile); middleground (½ mile to 4 miles); and background (> 4 miles). Of particular concern are travelways, such as primary highways and trails, as well as primary use areas such as campgrounds. The project area is visible from a few Concern Level (CL) 1 and 2 viewing platforms that were identified during forest planning (*IPNF Implementation Guide for Scenery Management [DRAFT]*); these were visited to assess visibility of proposed activities from these locations.

The following table identifies the CL 1, 2, and 3 viewing platforms germane to the project.

**Table 1: Concern Levels for the Halfway Malin Project Area**

	Points of Interest	Routes/Roads	Trails	Rivers/Lakes
<b>Concern Level 1</b>	Town of Avery, Idaho	St. Joe Scenic Byway (Forest Highway 50)	Cedar Mountain Trail #9	St. Joe River
	Upper Landing Picnic Site		Nelson Ridge National Recreation Trail #186	
	Dunn Peak Lookout			
<b>Concern Level 2</b>	None	Forest Road #1934	None	None
<b>Concern Level 3</b>	None	None	None	None

### *Existing Scenic Integrity*

*Scenic Integrity*, as defined by the Scenery Management System (SMS), indicates “the degree of intactness and wholeness of the landscape character ... Landscape character with a high degree of integrity has a sense of wholeness, intactness, or being complete” (USDA Forest Service 1995). Scenic integrity is stated in degree of deviation from the landscape character as follows:

- Very High: Landscape is intact with changes resulting primarily through natural processes and disturbance regimes.
- High: Management activities are unnoticed and the landscape character appears unaltered.
- Moderate: Management activities are noticeable but are subordinate to the landscape character. The landscape appears slightly altered.
- Low: Management activities are evident and sometimes dominate the landscape but are designed to blend with surroundings by repeating line, form, color, and texture of valued landscape character attributes. The landscape appears altered.

The project area has been affected by human activities and the impacts resulting from some of those activities are visible on the landscape. Activities having the greatest impact on scenic resources include wildfire, fire suppression, road construction, timber harvest (and associated slash treatments), slash treatments, prescribed burning, tree planting, precommercial thinning, and developed and dispersed recreation sites. Of these, fire suppression, road construction, and timber harvest have had the greatest impact on scenery.

The effects of past timber harvest within the project area are visible primarily from points north of the project area in the foreground, middleground, and background viewing distances, including the CL 1 and 2

viewing platforms such as the Cedar Mountain Trail #9, Nelson Ridge National Recreation Trail #186, and Dunn Peak Lookout. These effects include color and texture contrasts associated with ground disturbance and groundcover and tree regeneration. Roads (including cut/fill slopes) associated with harvest activities are similarly visible, and can result in strong contrasts due to their linear nature; however, some of these effects can be reduced by early regeneration and brush depending on viewing distance and viewer position.

The effects of past timber harvest on private land dominate the viewshed from these locations, due to their large size, and line and texture contrasts resulting from the geometric shapes, and line and color contrasts resulting from road construction. The effects of past timber harvests on National Forest System lands are less evident due to the amount of regeneration that has occurred since harvest.

Over the last century, a combination of disease and fire suppression has impacted the vegetation, and consequently resulted in effects to scenic resources within the project area. As described in the vegetation report (PF: RRFV), the combination of blister rust (and subsequent insect and disease attacks and timber harvest) and fire suppression, have changed forest development across this landscape. The lack of early-seral species and the existing “homogenization and simplification of the landscape” (PF: RRFV) has resulted in the “homogenization and simplification” of the scenery. This is expressed by the lack of variety in texture, color, and form when compared to the scenery associated with the historic range of variation, and with the desired condition outlined in the forest plan. In addition, many of the stands are composed of dense stems that preclude visual penetration into the stand.

From the identified CL 1 and 2 viewing platforms, the project area would meet scenic integrity level (SIL) ranging from Low to Moderate, due to the visible deviations being dominant to remaining subordinate to the existing landscape character. In spite of this current visual condition, however, the landscape is continuing to move away from the desired condition for both vegetation and scenery as it specified in the FP.

## *Management Direction*

National law and policy provide direction for scenery management on public land as it applies to natural resource management. In addition, the Forest Service Manual (FSM) includes direction in regard to scenery management. The Idaho Panhandle National Forests 2015 Forest Plan (FP) provides forest-specific management direction. This direction is summarized below.

The National Environmental Policy Act of 1969 (NEPA) sets forth a national policy for the environment that provides for the enhancement of environmental quality. It states that it is the “continuing responsibility of the federal government to use all practicable means to assure for all Americans, aesthetically and culturally pleasing surroundings.” The Act directs agencies to develop practicable methodologies for scenery management of “aesthetically and culturally pleasing surrounding.” It also requires a “systematic and interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts into planning and decision-making which may have an impact on man’s environment.”

FSM Section 2380 requires the agency to “inventory, evaluate, manage, and where necessary, restore scenery as a fully integrated part of the ecosystems of the National Forest System lands through the land and resource management and planning process. Scenery must be treated equally with other resources.” It also includes direction to utilize the Scenery Management System as described in Agriculture Handbook No. 701.

The Scenery Management System (SMS) as described in Agriculture Handbook No. 701, *Landscape Aesthetics: A Handbook for Scenery Management*, was adopted by the IPNF with the FP. In regard to this project, SMS differs in its approach from the Visual Management System (VMS) developed in the 1970s in that it recognizes the potentially positive visual impact of man-made improvements of historic and/or cultural significance (e.g., cabins, fences, mining structures, etc.). Another important difference between



the VMS and the SMS is that in contrast to the VMS, which specifically identified timeframes for meeting the objectives (e.g., 1 year to meet the Partial Retention objective), the SMS does not attach timeframes to meeting Scenic Integrity Objectives (SIO). Instead, timeframes for meeting SIO are disclosed in the project scenic resources report (i.e., this report) and the project specific NEPA document.

Scenery management direction outlined in the forest plan is discussed below.

## Forest Plan

The FP provides standards and guidelines which pertain to scenic resources in the Brebner Flat project area:

- **FW-DC-AR-02:** The scenic resources of the IPNF complement the recreation settings and experiences while reflecting healthy and sustainable ecosystem conditions.
- **FW-GDL-AR-01:** Management activities should be consistent with the mapped scenic integrity objective, see Plan set of documents. The scenic integrity objective is High to Very High for scenic travel routes, including the Pacific Northwest National Scenic Trail, designated Scenic Byways, and National Recreation Trails.
- **MA2a-GDL-AR-08. Recreational:** Management activities should be consistent with the Scenic Integrity Objective of Moderate to High in designated recreational river segments.
- **MA6-GDL-AR-05:** Management activities should be consistent with the Scenic Integrity Objective of Low to High.

*The IPNF Implementation Guide for Scenery Management: Understanding the how, what, and when of implementation under the 2015 IPNF Forest Plan (DRAFT)* provides further direction on the application of the SMS within the context of the Forest Plan, and includes mapping of necessary SMS components, including CL 1, 2, and 3 viewing platforms and SIOs (mapped at the forestwide scale). This guidebook provides for refining and expanding on forestwide inventory information to ensure the sufficient level of detail necessary in describing both the affected environment and environmental effects.

## Environmental Consequences

### Methodology

Agriculture Handbook No. 701, *Landscape Aesthetics: A Handbook for Scenery Management*, was used to evaluate the proposed project. The Scenery Management System represents the best available science for achieving high quality scenery as an outcome of National Forest management practices.

Information on the existing condition of scenic resources was collected through office work and during site visits during summer and fall of 2017. Prior to entering the field, forest plan mapping was reviewed to determine the relevant CL 1, 2, and 3 viewing platforms. In addition, project maps were used to identify the potential visibility of the proposed activities and treatments, especially from the CL 1, 2, and 3 viewing platforms. The Forest Plan SIO and Scenic Attractiveness maps (in both digital and hardcopy formats) were consulted to determine relevant direction for the project area.

In the field, the CL 1, 2, and 3 viewing platforms were visited. Photographs were taken from a variety of points along the CL 1, 2, and 3 viewing platforms where project treatment units were assessed to be visible. Photographs of broader portions of the project area were also taken where it was difficult to assess or unknown whether units would be visible. This reconnaissance was used in the office to determine actual seen areas and gauge existing scenic integrity, as well as for use in the analysis phase of the project.

For analysis, field reconnaissance photographs, together with project contour maps, were used to determine visibility of the proposed action. To further assist in determining unit/activity visibility, the analysis also used Google Earth Pro web-based software. Project treatment units and roads were imported into Google Earth Pro (as .kmz files) and draped over the three-dimensional model. Units were then viewed from near ground level and/or “street view” from a variety of locations, including those located at or along the CL 1, 2, and 3 viewing platforms from which photographs had been taken during field reconnaissance. For some highly visible proposed units and roads, these three-dimensional model views created in Google Earth Pro were saved as .jpeg files and placed on actual photographs to create rough photographic simulations (using Adobe Photoshop software) depicting the location and shape of the unit(s) on the landscape. This step provides for a more specific understanding of the visibility of a particular unit, as well as to account for any screening vegetation or landform which is not evident in Google Earth Pro. A limitation of using Google Earth Pro for determining visibility is that near view screening from adjacent trees cannot be taken into consideration.

Additionally, a review of past projects with similar activities was conducted to more fully understand the effects of various treatment types from a variety of viewing distances, as well as the effects of road construction/reconstruction/maintenance.

Tables were then developed to document effects of treatment by unit and temporary road. Once visibility of proposed treatment units and roads from the CL 1, 2, and 3 viewing platforms was established as described above, determinations were made regarding the effects of visible treatment units, the need for project design features, and if the SIOs would be met under the proposed action.

### *Spatial and Temporal Context for Effects Analysis*

Management activities such as timber harvesting and road construction/reconstruction can effect scenic resources by creating changes in the form, line, color, or texture in a given viewing area. The degree of visual impacts resulting from these actions depends on the interaction of elements in relation to the viewer, such as the surrounding landscape, slope, aspect, and frequency and duration of the view. There are several identified points of interest, routes/roads, trails, rivers, and lakes of concern (identified in the Draft IPNF Implementation Guide) that offer views of the project area, as well as from the surrounding area. The visible effects of proposed activities may result in form, line, color, and texture contrasts with both the existing and desired condition.

For scenic resources, the spatial context of the effects analysis is the project area and includes all areas of harvest, prescribed burning, and other activity units, landings and processing areas (including slash disposal areas), and road construction/reconstruction, and any other areas where ground-disturbing activities have the potential to impact scenic resources.

With regard to temporal context for direct and indirect effects to scenic resources, short-term refers to the first 5 year period following completion of implementation of timber harvest, slash disposal, regeneration, prescribed burning, and other activities proposed under this project. This period of time is associated with the greatest impact to scenic resources, including tree removal, ground disturbance and general change to the existing condition. Long-term refers to the period of time beyond that initial 5 years, and is associated with the recovery of vegetation, both grasses and shrubs, as well as early regeneration of the forest overstory.

For purposes of the cumulative effects analysis, the spatial context is the visible area within which the effects of the proposed action and the identified past, present, and reasonably foreseeable future actions are, or are expected to be, visible at the same time. The temporal context for the cumulative effects analysis will be the same as the direct and indirect effects analysis.

## *Resource Indicators and Measures*

The resource indicator used to measure effects to scenic resources is Scenic Integrity. Scenic Integrity is measured qualitatively in terms of Scenic Integrity Levels (SILs). SILs range from Low to Very High, and are a description of the “degree of intactness and wholeness of the Landscape Character” (USDA 1995, p. 7), in relation to both the existing and desired scenic integrity. Furthermore, the use of scenic integrity as an indicator of change facilitates comparison with the SIO (identified as guidelines in the Forest Plan) to determine compliance of the project.

Both the existing condition and effects analysis refer to this indicator, and the effects analysis relate this to the forest plan direction for scenic resources.

## **Alternative A: No Action**

By definition, direct and indirect effects (40 CFR 1508.8) and cumulative effects (40 CFR 1508.7) result from the proposed action, and thus are not germane to the No Action Alternative.

Under this alternative, the existing condition would prevail, and current trends may continue, barring a stand-replacing fire or disease incident. The slow change resulting from the conversion of the few white pine-, larch-, lodgepole-, and ponderosa pine-dominated stands to the grand fir forest types would increase the areas that are dominated by the finely textured forest cover, which would be evident in middleground and background viewing distances. The grand fir mix stands would continue to exhibit this finely textured forest cover, with a slow but perceptible change as the remaining western white pine, larch, and ponderosa pine are lost. In the foreground viewing distance from the surrounding areas, views would more consistently be of medium-size class as larger trees are killed, with a dense understory of shade-tolerant species that will increasingly reduce visual penetration into the stands.

This situation would result in a “homogenized and simplified” landscape (see Silviculture Report), from a visual standpoint, as contrast and interest associated with color and texture are reduced in all viewing distances. To many forest visitors, the visual appearance of such a landscape has aesthetic appeal. However, it does not move the project area toward the forest-wide desired condition for scenic resources in which “scenic resources of the IPNF... reflect healthy and sustainable ecosystem conditions” (2015 Forest Plan, p. 34).

## **Alternative B: Proposed Action**

### *Direct and Indirect Effects*

The direct and indirect effects of the proposed action are those related to the specific activities proposed for the project. These effects are measured as appropriate from FP-identified viewing platforms.

### **Timber Harvest, Slash Disposal, and Regeneration Activities**

The action alternative proposes timber harvest using the following three treatments: irregular shelterwood with reserves, seed tree with reserves, and clearcut with reserves. These treatments are regeneration harvest treatments focused on removal of late-seral species (grand fir, Douglas fir, and lodgepole pine), and would result in removal of most of the trees in the units. The clearcut with reserves treatment will result in nearly all of the trees removed, with the seed tree with reserves treatment retaining more trees. The irregular shelterwood with reserves treatment would retain yet more trees. It is expected that 5-10 trees per acre would be retained in the clearcut with reserves units, and as many as 30 trees per acre in the irregular shelterwood with reserves treatment units. The effect of the clearcut with reserves and seed tree with reserves treatments on scenic resources will be a created opening where the ground is visible through the

retained trees. This will result in color, texture, and line contrasts that are expected to be visible in foreground, middleground, and background viewing distances.

The effect will be similar with the irregular shelterwood with reserves treatment: effects will range between a created opening with most of the ground visible to a slight texture change where the ground is slightly visible through the retained trees, depending on the number and spatial distribution of the retained trees.

### ***Effects Associated with Harvest Operations and Road Activities***

Various types of logging systems would be used based on terrain and access constraints. On steeper terrain, skyline and off-road skyline yarding systems would be used, and tractor yarding would be utilized on flatter ground. In skyline units, reserve trees would be greater in number and denser at the lower elevations of the unit compared to the higher elevations. In tractor units, it is expected that reserve trees would be dispersed more uniformly throughout the unit.

Related to effects of treatment are the effects associated with harvest and construction operations, which are generally perceived negatively by the public. Activities include equipment operation, road construction, road reconstruction, temporary road construction, landing construction and use, skid trail construction and use, and slash piling and disposal. The effects of these activities include ground disturbance, stumps, generation of slash, damaged reserve trees.

Ground disturbance resulting from equipment operation for cutting, yarding, skidding, as well as new road construction, landing construction, road reconstruction, and temporary road construction activities can affect scenery by exposing light colored soils and creating noticeable color contrasts which have the potential to be visible in all viewing distances. Line contrasts may also result and be noticeable in all viewing distances.

In general, actions such as fully recontouring temporary roads and landings, reseeding roads, landings, and slash piles, minimizing cuts and fills associated with permanent and temporary road construction and landings, and screening these effects as seen from CL 1 and 2 viewing platforms by utilizing topography and vegetation screening would all help to reduce impacts.

Woody debris and slash resulting from harvest activities can have some of the greatest impacts on the visual quality of a viewshed following harvest (Ryan 2005). When slash is mechanically piled and then burned, areas where pile burning occurs will be blackened and some unburned or partially burned materials will remain after burning. Visibility of the effects of pile burning are usually limited to the foreground and middleground viewing distances. Disposal of slash piles as soon as possible after they are generated reduces the amount of time they are visible to the public. In addition, when burning slash piles in the viewshed of sensitive corridors, implementation should ensure 95 percent consumption of the piles, even when this may mean re-piling and re-burning. Scattering slash that has not been consumed by burning is also acceptable.

Broadcast burning of slash throughout the unit and burning slash piles would result in additional color and texture contrasts as areas are left blackened by fire. Other visible effects of slash disposal by burning would be tree mortality (standing with red needles), scorched/blackened tree boles, as well as blackened slash material that is not completely consumed during burning activities.

The effects of operations are most noticeable during the first several years following treatment. In the short term, soil disturbance related to operations will be visible depending on location and screening by remaining vegetation. In the long term, it is expected that many of the impacts associated with project operations will have dissipated, as seen in all viewing distances. Groundcover of grasses and some shrubs are expected to have recovered, regeneration is expected to have begun, together screening some stumps and downed woody debris left in the unit. Effects of slash piling and disposal will have also dissipated.

Regeneration activities are proposed for the timber harvest units following burning. This includes planting a mix of western larch and rust-resistant white pine, possible gopher control activities, as well as potential

future pruning activities to protect regeneration from white pine blister rust and improve growing conditions. The effects of these activities include slight color and texture contrasts, but are moving the treated areas toward the desired condition for scenic resources.

### ***Treatment Unit Analysis – Concern Level 1***

#### **Forest Highway 50/St. Joe River**

Due to topographic and vegetative screening, as well as viewer position, the effects of treatment in units 01b and 03b would be visible from Forest Highway 50 and the St. Joe River just west of the town of Avery, Idaho. With respect to unit 01b, these effects will result in a break or breaks in the ridgeline vegetation, which will be noticeable from FH 50. Retaining additional trees on the northern portion of this unit will minimize the visibility of effects in this unit and help to retain the existing ridgeline vegetation.

In unit 03b, effects will be visible in a small northern portion of this unit and for a very brief moment from vehicles traveling on FH 50, and will not be evident as a management activity in this view.

#### **Town of Avery, Idaho**

Effects of treatment will be similar to those described for FH 50 and the St. Joe River, especially from the west end of the town.

#### **Upper Landing Picnic Site**

Effects of treatment will not be visible from this viewing platform.

#### **Cedar Mountain Trail No. 9**

Effects of treatment in units 08a, 08b\_1, 08b\_2, 09a, 09b, 13a, 13b\_1, 13b\_2, 14b, 19b\_2, 19c, 21a, 21b, and 23a will be visible from this viewing platform.

Of these, effects of treatment in unit 14 will be most evident due to its location on the upper portion of an approximately 50% slope. Treatment will create an opening with some trees remaining, resulting in color and texture contrasts. In addition, treatment in this unit will expose the existing road at the top of the unit, lending it a geometric appearance and resulting in line contrasts. To minimize these contrasts, retain adequate trees along the top of the unit to minimize the visibility of the road and reduce the visual impact of this unit. In addition, layout of this unit should avoid straight boundaries on the sides and bottom of the unit, and include feathering of these sides and bottom edges adequate to avoid creating a “bole edge” effect.

Effects of treatment in units 08a, 08b\_1, 09a, and 09b will result in color and texture contrasts that will be obvious due to the size and orientation of at least a portion of the units toward the viewer. Design features to minimize the visual impact of this unit include meandering boundaries, and feathering the edges of the unit to blend the opening into the surrounding area. Similar effects will result from treatment in units 21a, 21b, and 23a, but will be less evident due to viewing distance.

Effects of treatment in units 13a, 13b\_1, and 13b\_2 will be limited by the gentle slope of the units and flat viewing angle. Treatment type will also limit the visibility of effects as higher retention is expected under the irregular shelterwood treatment. Effects in units 19c will likewise be limited by viewing distance and slope of the unit, as well as the canopy cover retention in the unit under the irregular shelterwood with reserves treatment. Effects of treatment in unit 19b\_2 will be more evident as a result of a higher degree of visible ground through the remaining trees, and design considerations should include stringers in draws and feathering of the unit edges. The shape of the unit will be helpful in breaking up the geometric patterns prevalent on the landscape from the past harvest on private industry lands as seen from this as well as other viewing locations.

### Nelson Ridge National Recreation Trail No. 186

Effects of treatment in units 01b, 02b, 03a, 03b, 05b, 06a, 06b, 08a, 08b\_1, 08b\_2, 13a, 13b\_1, 13b\_2, 13c, 14b, 21a, 21b, 39b, 40b, will be evident from the Nelson Ridge National Recreation Trail.

Effects of treatment in unit 01b will be evident, and shape of this unit, as well as feathering of the edges will help to minimize these effects in this view as well as that from Forest Highway 50 and the St. Joe River (see analysis above).

Effects of treatment in units 02b, 03a, 03b, and 05b will be evident, but will be limited by the limited visible area, flat viewing angle, and gentle slope of these units. These will allow these effects to remain subordinate to the existing landscape character.

Units 06a, 06b, 08a, 08b\_1, 08b\_2, and 13a, 13b\_1, 13b\_2, 13c, 14b, and 40b will have the greatest visual impact on scenic resources as seen from the Nelson Ridge NRT due to their orientation and proximity to the viewing location. As stated above, the irregular shelterwood treatment in units 13a, 13b\_1, and 13b\_2 will help reduce contrasts associated with color, as higher number of trees will be retained within these units. To minimize impacts, design and layout of these units should strive to create meandering natural appearing boundaries, provide for feathering of the boundaries and retaining leave areas within the units in the form of clumps and stringers that will break up these units.

Effects of treatment in units 21b and 29a\_1 will be evident in more distant views, but shaping of the unit boundaries will help them blend with the surrounding area. Other units in the middleground viewing distance will be visible but impacts will be limited by orientation in relation to this viewing location and the flat viewing angle (units 39b and 40b).

### Dunn Peak Lookout

Effects of treatment in units 01b, 03a, 03b, 08a, 08b\_1, 08b\_2, 09a, 09b, 12b, 13a, 13b\_1, 13c, 14b, 19b\_2, 19c, 21a, and 23a, and 36a will be visible from the Dunn Peak Lookout. Of these, effects will be greatest in units 03b, 13a, 13b\_1, 13c, 14b, 19b\_2 and 19c due to the size of the visible portion(s) of these units and the orientation of these units to the viewing platform. Effects of treatment in unit 13 will be limited by the amount of trees anticipated to be retained, as well as in units 19b\_2 and 19c. Effects of treatment in unit 14b will be similar to those described from the Cedar Mountain Trail (see that section above for description of effects as well as necessary project design features).

The effects of the proposed action with the associated scenery design features would meet the Forest Plan scenic integrity objectives in the short term and/or long term depending on viewing platform and viewing distance. Table 2 describes how the effects of harvest treatments will meet the applicable scenic integrity objective.

**Table 2. Scenic Integrity Objective by Harvest Unit Number**

Harvest Unit Number	Scenic Integrity Objective	Proposed Action Meet Scenic Integrity Objective in Long Term?
01	High	Yes, with design features applied
13a, 13c	High/Moderate	Yes, with design features applied
02b, 03a, 03b, 05b, 06a, 06b, 08a, 08b_1, 08b_2, 09a, 11a, 11b, 12b, 13b_1, 14b, 19b_3, 19c, 20a, 20b_1, 20b_2, 21a, 21b, 26a, 27a, 28a, 29a_2, 29b_5, 29c, 31a, 31b, 32a, 33a, 34b, 35a, 36a	Moderate	Yes, with design features applied

Harvest Unit Number	Scenic Integrity Objective	Proposed Action Meet Scenic Integrity Objective in Long Term?
09b, 19b_2, 22a, 22b, 23a, 23b, 27b, 28b, 29a_1, 29a_3, 29b_6, 29b_7, 30a, 30b_1, 30b_2, 34a 37b_2, 37b_3, 38c, 39a, 39b, 40b, 41b	Moderate/Low	Yes, with design features applied

### ***Treatment Unit Analysis – Concern Level 2***

#### **Dunn Peak Road No. 1934**

Effects of treatment in units 01b, 02b, 03a, 03b, 05b, 06a, 06b, 08a, 08b\_1, 08b\_2, 09a, 09b, 11a, 11b, 12b, 13a, 13b\_1, 13b\_2, 14b, and 19b\_2, and 19c will be evident in views from the Dunn Peak Road No. 1934.

Similar to views from the Nelson Ridge NRT, visibility of effects in units 02b and 05b will be limited by intervening topography, as well as the gentle slope of the units. Similarly, the effects of treatment in units 09a and 09b will be limited by the flat viewing angle. In all of these units, where effects are visible, treatments will result in a change in texture and the ground will be visible, resulting in color contrasts with surrounding areas.

Due to their orientation and proximity to the viewing location, effects in units 03a, 03b, 06a, 06b, 08a, 08b\_1, 08b\_2, 11a, 11b, 12b, 13a, 13b\_1, 13b\_2, and 14b will be evident from the Dunn Peak Road. Similar to views from the Cedar Mountain Trail and Nelson Ridge NRT, unit shape and edge treatment will be critical to meeting the SIO of Moderate as seen from this viewing location in the long term. These units will result in created openings and/or texture changes, dominating the viewshed in the short term, but meeting the SIO in the long term as vegetation recovers and the effects of logging operations dissipate.

### **Road System Management**

Under this alternative, new system road, temporary road, and road reconstruction is proposed. Of all the activities included in the proposed action, road system related activities have the potential to have the greatest impact on scenic resources. This is due to the high potential of road management-related activities to introduce line, color, and texture contrasts into the landscape possibly resulting in effects that may dominate the viewshed both in the short-term and long-term.

In the foreground viewing distance, as seen from both the road itself and the surrounding area, road construction activities result in a cleared area for the roadbed, as well as any necessary cut and fill slopes. Immediately following construction, cut and fill slopes usually do not have any vegetation, and vegetation may take the short-term to grow, and may be sparse depending on site specific factors. In the middleground viewing distance, these same contrasts may be visible, depending on topography, design of the road, and viewer position. Design features to minimize color and line contrasts such as seeding to encourage grass growth and recovery of shrubs would help to minimize visual impacts.

The proposed new road construction would not be visible from Forest Highway 50, the St. Joe River, Upper Landing Picnic Site, or the Town of Avery. However, roads or portions of roads to be constructed under this project, including NC-01, NC-04, NC-08, and NC-10, will be visible from the Nelson Ridge NRT, the Cedar Mountain Trail, Dunn Peak Lookout, and the Dunn Peak Road. From these viewing positions, the effects will be as described above, and will persist into the long term without mitigation measures applied to retain some screening and encourage quick regeneration of cut/fill slopes. To this end, the roads will be located to take advantage of topographic and vegetation screening, retaining trees in order

to screen the effects of these roads from these viewing platforms. In addition, clearing width will be minimized to that necessary to construct the road.

In addition to proposed new road construction, temporary roads will be constructed to access portions of the harvest units. Temporary roads or portions thereof, including TC-02, TC-04, TC-11, TC-12, TC-13, TC-14, TC-16, TC-18, TC-19, TC-20, and TC-21 will be visible from the Nelson Ridge NRT, the Cedar Mountain Trail, and the Dunn Peak Road. Of these, the roads that are expected to have the greatest impact on scenic resources in TC-16, TC-18, TC-19, TC-20, and TC-21 in unit 13a, 13b\_1, 13b\_2, and 13c, as well as TC-13 in unit 11b. Similar to the new road construction, these roads will be located to take advantage of topographic screening to the extent possible, and will be fully recontoured and reseeded once harvest operations are completed.

table 3 describes how the effects of new road construction will meet the applicable scenic integrity objective.

**Table 3. Scenic Integrity Objective in relation to new road construction**

<b>Road Number (New Construction)</b>	<b>Scenic Integrity Objective</b>	<b>Proposed Action Meet Scenic Integrity Objective in Long Term?</b>
NC-01	Moderate	Yes, with design features applied
NC-04	High/Moderate	Yes, with design features applied
NC-08	Moderate	Yes, with design features applied
NC-10	Moderate	Yes, with design features applied
NC-17	Moderate	Yes
NC-22	Moderate	Yes

### *Cumulative Effects*

The cumulative effects analysis considers how other present and foreseeable future actions, as well as past actions, would combine with the proposed action to affect scenic resources.

A number of past and present actions have occurred or are occurring in the project area and surrounding area that generally have minimal effects to scenic resources including: road decommissioning, precommercial thinning, white pine pruning, road maintenance, gopher control baiting, outfitter/guide operations, public recreational activities (berry picking, hunting, camping, hiking, OHV use, etc.) and public firewood cutting. Effects resulting from these activities are generally localized, and would remain subordinate to the landscape character.

Actions that have occurred in the cumulative effects area (CEA) and that have a greater potential to affect scenery include: fire suppression, road construction, wildfires, timber harvest and associated slash treatments, slash treatments, prescribed burning of shrub fields for wildlife browse improvement, and tree planting.

Road construction has resulted in color and line contrasts visible from the CL 1 and 2 viewing platforms as well as the surrounding general forest area similar to those effects described in the direct and indirect effects section above.

Past timber harvest, employing a variety of prescriptions and logging systems, has occurred throughout the surrounding area on National Forest and private lands. Results of these actions are visible in varying degrees from the CL 1 and 2 viewing platforms examined in this analysis. Due in large measure to viewing distance (primarily middleground and background), effects from these actions range from an altered



appearance, where contrasts are minimal, to a modified appearance that dominate the viewshed, depending on soils, aspect, vegetative species composition, and state of regeneration, as well as viewing distance.

The effects of these past timber harvest activities are noticeable to the average viewer and may dominate the viewshed in the foreground and middleground, but are generally subordinate to the landscape character being viewed in the distant middleground and background viewing distances. The effects of road construction are visible in all viewing distances, and can dominate the viewshed.

The effects of slash treatment, such as pile burning and broadcast burning, include color and texture contrasts; however, these usually persist in the short-term only and are not evident on the landscape from the CL 1 and 2 viewing platforms.

Reasonably foreseeable future activities that have the potential for effects to scenic resources include: fire suppression, precommercial thinning, white pine pruning, road maintenance, outfitter/guide operations, herbicide spraying, dam operations on Kelly Creek, and public firewood gathering and recreational use (including OHV use). Effects from these activities would be similar to those described above.

The combined effects of the proposed action and the effects of past, present, and reasonably foreseeable future actions described above will be noticeable, but will not lower the scenic integrity levels of the area when design features are applied. In some areas, where the geometric shapes and lines of harvest on private land are visible and even dominate the viewshed, the effects of the proposed action will soften these edges, making them less obvious from the identified viewing platforms.

### *Forest Plan Compliance*

The proposed action would have impacts on the scenic resource of the project area as described in the direct/indirect and cumulative effects sections above. The effects of this alternative would meet the Forest Plan SIOs in the short- and/or long term as described below by project activity.

The effects of the proposed action would meet the Forest Plan scenic integrity objectives in the short term and/or long term. Effects of harvest activities in unit 01b will meet the scenic integrity objective of “high” as seen from Forest Highway 50 and the St. Joe River with the prescribed project design features applied. Effects of the proposed timber harvest activities would meet a scenic integrity level (or scenic integrity objective, as appropriate) of “low” in the short term, and the scenic integrity objective of “moderate” in the long term as seen from the Nelson Ridge National Recreation Trail, Cedar Mountain Trail, Dunn Peak Lookout, and Dunn Peak Road with the prescribed project design features applied.

Effects of the proposed road system management activities would meet a scenic integrity level rating of Low in the short-term, and the SIO of Moderate in the long-term as seen from the Nelson Ridge National Recreation Trail, Cedar Mountain Trail, Dunn Peak Lookout, and Dunn Peak Road with the prescribed project design features applied.

## **Design Features – Scenic Resources**

- Treatment unit boundaries would resemble the shape of natural openings in the surrounding area, would not be symmetrical in shape, avoid right angles and straight lines, and follow natural topographic breaks and changes in vegetation.
- Unit boundaries should reduce the hard edges that appear as man-made features on the landscape.
- Minimize cuts and fills associated with road and landing construction, and recontour and reseed temporary roads, landings, and slash piles when harvest activities are completed.
- Units 13a, 13b\_1, 13b\_2, 13c, 19b\_2, 19c, and 23a: Retain groups of leave trees to provide vertical structure within the harvest area and break up the opening. These would be both live and dead trees emulating the same structure that would remain after a natural mixed-severity wildfire. These

leave trees would have an irregular or uneven distribution and can range from individual trees to groups of trees one quarter to 3 acres in size and may also include leave areas adjacent to unit boundaries. These groups or clumps may take the form of stringers extending up drainages to meet this requirement.

- Units 01b, 03a, 03b, 06a, 06b, 08a, 08b\_1, 08b\_2, 09a, 09b, 11a, 11b, 12b, 13a, 13b\_1, 13b\_2, 13c, 14b, 19b\_2, 19c, 23a: Feather all unit boundaries; i.e., where units or portion of units are adjacent to denser forest, the percentage of trees removed within the transition zone will be progressively reduced toward the outside edge of the unit. In addition, vary the width of the transition zone (USDA Forest Service 2011).
- Unit 01b: Retain adequate trees along the northern boundary of this unit to avoid creating a visible break in the existing ridgeline vegetation as seen from Forest Highway 50 west of Avery, Idaho.
- Unit 14b: Meander the side and bottom boundaries of this unit. Feather side and bottom boundaries. Retain trees along the downhill side of FSR 1433 to soften the linear nature of the upper boundary of the unit.
- Units 03a, 03b, 09a, 09b, 13a, 13b\_1, 13b\_2, 13c: Locate all new permanent road construction in these units to take advantage of topographic and vegetation screening, retaining trees in order to screen the visible effects of these roads from these routes. Minimize the clearing width to that necessary to construct the road.
- Locate all new temporary road construction in these units to take advantage of topographic and vegetation screening as feasible. All temporary roads will be fully recontoured and reseeded once harvest operations are completed.
- Road cuts and fills will be sloped to accommodate grass seeding and natural revegetation. Tree planting will include placement on fill slopes to reduce color contrasts (USDA Forest Service 2011).

## References

Ryan, Robert L. 2005. *Social science to improve fuels management: a synthesis of research on aesthetics and fuels management*. Gen. Tech. Rep. NC-261. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 58 p.

USDA Forest Service. 1995. Agriculture Handbook #701, *Landscape Aesthetics: A Handbook for Scenery Management*. <http://naldr.nal.usda.gov/>.

USDA Forest Service. 1997. *Integration of Forest Planning Into Ecosystem Management: Toward a Forest Ecosystem Approach: An Assessment for the St. Joe Area*. St. Joe Ranger District, Idaho Panhandle National Forests, St. Maries, ID. 120 p.

USDA Forest Service Northern Region. 2011. *Northern Region Scenic Resource Mitigation Menu & Design Considerations for Vegetation Treatments*.

USDA Forest Service Idaho Panhandle National Forest. 2016. *The IPNF Implementation Guide for Scenery Management: Understanding the how, what, and when of implementation under the 2015 IPNF Forest Plan (DRAFT)*.